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American Academy of Pediatrics

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Committee on Environmental Hazards

Chairman
Richard J. Jackson, M.D.
Hazard Evaluation Section
CDHS-Room 617
2151 Berkeley Way
Berkeley, CA 94704-1011
415-540-2658

October 31, 1990

Mr. Michael Shapiro
Acting Assistant Administrator for Air and Radiation
Air Docket (LLE-131)
U.S. Environmental Protection Agency, Room M-1500
401 M Street, SW
Washington, DC 20460

Dear Mr. Shapiro:

Re: Application for a Fuel Additive Waiver filed by Ethyl Corporation for the Hitec[R] 3000 Performance Additive (FRL-3784-9).

On behalf of the Committee on Environmental Hazards of the American Academy of Pediatrics, I wish to express our concern about the granting of the above waiver to Ethyl Corporation. The committee has concerns about the potential adverse community health effects from addition of Hitec[R] 3000, a neurotoxic chemical, to a widely used product, unleaded gasoline. Specifically, the committee is concerned about the rushed procedure for approval of the waiver, data gaps in information on the neurotoxicity of Hitec[R] 3000 (Methylcyclopentadienyl Manganese Tricarbonyl or MMT) especially in primates, materials balance information (i.e., 95% of the manganese added to the gasoline is not accounted for), and absent scenarios (e.g., is a child more at risk when MMT-containing unleaded gasoline is spilled on the skin compared to currently available unleaded gasoline).

Pediatric exposure to gasoline is well documented and constitutes a great concern to the pediatrician. Gasoline is the primary substance of concern regarding exposure to hydrocarbons. Children under the age of 3 account for 50% of patients admitted to hospitals for hydrocarbon ingestion. Hydrocarbon exposure has been one of the most common reasons for pediatric admission (18%) and mortality (29%) after the age of 5 (Ellenhorn and Barceloux Medical Toxicology, 1988, pp. 940-947). The most common agent involved in calls to poison control centers concerning hydrocarbons is gasoline (44%). Thus, an increase in the toxicity of gasoline and gasoline formulations is likely to exacerbate this problem.

The acute toxicity of MMT is on the order of that of aldrin and dieldrin for ingestion and dermal exposure. This high toxicity may result in an increase in the toxicity of gasoline and an increase in the type of toxicity effects seen from gasoline exposure. Currently, ingestion constitutes the primary route of toxic exposure to children. Based on the dermal toxicity of MMT and its rapid dermal absorption, exposure to gasoline with this additive may result in a greater number of pediatric poisoning cases.

The addition of MMT to gasoline may result in a new gasoline syndrome. Currently poor gastrointestinal absorption prevents substantial systemic toxicity from gasoline exposure. However, MMT may present a neurotoxic effect based on neurologic disease related to manganese exposure. Exposure may occur not only from ingestion or dermal absorption, but also from inhalation of increased airborne manganese resulting from tailpipe emissions and non-tailpipe emissions. The inability to account for 95% of the input manganese is troubling.

The committee wishes the Agency to develop an in-depth analysis of the ramifications of a greatly increased usage of a potent neurotoxin, MMT, before approving the waiver.

Sincerely,

Richard J. Jackson, M.D. M.P.H.

cc: Antoinette Eaton
Roy Koteras
James Collins

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Miller Land Company

(a Virginia Limited Partnership)
601 Stockton Street, P.O. Box 141, Richmond, Virginia 23201-0141
Phone (804) 232-6646

J. Clifford Miller, Jr.
General Partner

October 25, 1990

Administrator William K. Reilly
Environmental Protection Agency
401 M Street, S. W.
Washington, D. C. 20460

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Dear Sir:

It is my understanding that the Ethyl Corporation has asked the EPA for a waiver under the Clean Air Act to allow the use of HiTEC 3000 in gasoline.

This request was made after the largest and most comprehensive set of tests ever conducted by private industry in support of a waiver request.

The results show that HiTEC 3000 additive can reduce significantly overall tail pipe emissions and to boost the octane rating of gasoline to extend fuel efficiency.

I further understand Canadians have driven, since 1978, more than 400 billion miles on gasoline containing HiTEC 3000, with no harmful effects to the environment.

Furthermore, if HiTEC is permitted to be used in the United States, it is estimated it will save 30 million barrels of crude oil annually, which would reduce the American trade deficit at $25.00 a barrel, about $750 million a year. Now wouldn't that make old Saddam unhappy and make the American tax payer very happy?

I hope very much that you will approve the use of HiTEC 3000; it will be a big benefit to our country.

Thanks very much for your consideration.

Yours very truly,

J. Clifford Miller, Jr.

JCM:MW